STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

October 19, 2007

Mr. Michael Koutsourais
Anchor Wall Systems, Inc.
43427 Turnberry Isle Court
Leesburg, VA 20176

Subject: Conditional Approval of Anchor Wall System's Landmark Reinforced Soil Wall System

Dear Mr. Koutsourais:

The Geotechnical Engineering Unit (GEU) has conditionally approved Anchor Wall System's Landmark Reinforced Soil Wall System for use on North Carolina Department of Transportation (NCDOT) projects in accordance with the "NCDOT Policy for Mechanically Stabilized Earth Retaining Walls". Conditionally approved mechanically stabilized earth (MSE) retaining wall systems are subject to the restrictions listed in the NCDOT MSE Retaining Wall Policy. This policy also includes restrictions for MSE wall systems with segmental retaining wall (SRW) units and requirements for attaining full approval of MSE wall systems. The policy may be obtained from:
http://www.ncdot.org/doh/preconstruct/highway/geotech/msewalls/

AASHTO Standard Specifications for Highway Bridges limits the facing height above the uppermost reinforcement layer to the SRW unit width and the vertical spacing between reinforcement layers to twice the unit width or 31", whichever is less. However, the Landmark Reinforced Soil Wall System does not meet these requirements because the vertical spacing between reinforcement layers is 30" and the SRW units are 15" high and approximately 12" wide. Anchor Wall System justifies these differences from AASHTO in the *Evaluation of Anchor Wall Systems' Landmark Reinforced Soil Wall System with T.C. Mirafi's Miragrid & Miratex Geogrid Reinforcement – Final Report* by the Highway Innovative Technology Evaluation Center (HITEC) with the *MSE Walls and RSS Design and Construction Guidelines* (Publication No. FHWA-NHI-00-043) based on the use of mechanical connections. Anchor Wall System's Landmark Reinforced Soil Wall System will be allowed design exceptions to AASHTO regarding the maximum facing height above the uppermost reinforcement layer and the maximum vertical spacing between reinforcement layers.

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Based on the HITEC report, Miragrid 3XT or Miratex TD3 or better Miragrid/Miratex reinforcement is required for use with Anchor Wall System's Landmark Reinforced Soil Wall System. In addition, Landmark lock bars are required and defined as a miscellaneous component in accordance with NCDOT's Standard Mechanically Stabilized Earth Retaining Walls Special Provision. This provision may be obtained from:
http://www.ncdot.org/doh/preconstruct/highway/geotech/provnote/

If you have any questions, I can be reached at (919) 250-4088.

Sincerely,

Njoroge W. Wainaina
State Geotechnical Engineer

cc: K. J. Kim, Ph.D., P.E., Eastern Regional Geotechnical Manager (w/ HITEC report)
John Pilipchuk, L.G., P.E., Western Regional Geotechnical Manager (w/ HITEC report)
Don Moore, L.G., Geotechnical Contract Administrator (w/ HITEC report)
Greg Perfetti, P.E., State Bridge Design Engineer
Dave Henderson, P.E., State Hydraulics Engineer
Cecil Jones, P.E., State Materials Engineer
Rodger Rochelle, P.E., State Alternative Delivery Engineer
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Bridge Maintenance Unit